Today's Date: 01/13/2003 17:11:13 (GMT)

Site: SGP

IOP: Aerosol IOP

IOP Date: May 2003

Questionnaire Submitter: Richard Ferrare

Instrument System: IOP Coordination

SECTION 1.00: On-site Coordination

An on-site coordinator is necessary to coordinate all activities of IOP participants at the SGP CART and to interface with the SGP Site Operations Manager and his staff.

1.00 - Your ARM Status: ARM Science Team PI

2.00 - List the name(s) of the persons who will serve as on-site coordinator and the dates they will be on-site to fill this role. [Note: All visitors to the site must fill out a Site Visit Request form]: Rich Ferrare, Steve Schwartz, John Ogren, Pat Sheridan, Pat Arnott (exact dates uncertain at this time)

3.00 - List any on-site facilities (e.g. conference room, conference phone, video projector, etc) needed.: would like to have access to conference room and conference phone for potential meetings and to communicate to Ponca City airport

SECTION 2.00: Aircraft Coordination

All research aircraft flights over the SGP must be coordinated with the FAA. The FAA contact is Roger Wingert (Kansas City Office), 913-254-8442. The SGP CART central facility is in subsection 8 of the Vance AFB MOA. The FAA will coordinate aircraft operations with Vance AFB. SGP Site Operations personnel will provide Vance AFB with additional information, as needed.

1.00 - Will aircraft be involved in this IOP? (Y/N): Y

1.01 - List the aircraft and where they will be based for the IOP: CIRPAS Twin

Otter, Ponca City airport IAP Cessna C-172N, Ponca City airport (Greenwood Aviation)

1.02 - Briefly describe the flight plans: Twin Otter flights will mostly be a series of level leg flights over the ARM SGP facility at or below 12000 feet. There will be some spirals involved also. There will be 3-5 coordinated flights with the Twin Otter and the IAP Cessna aircraft.

1.03 - Will any flight segment (other than takeoff/landing) be below 1,000 ft above ground level?: Yes. We desire the Twin Otter to fly at 300 feet on several flights.

1.04 - Who will be responsible for coordinating aircraft flights and determining whether to fly on a particular day?: mission scientists at Ponca City (Ferrare, Schmid, Redemann, Schwartz, Ogren, etc.) as well as CIRPAS scientist (Jonsson)exact dates/roles TBD

1.05 - How will communications between the aircraft coordinator and the flight crew be effected? Will regular (e.g. daily) briefings/planning sessions be held?: Regular morning, late afternoon briefings to be held at Ponca City airportairport

SECTION 3.00: Off-site Facilities

1.00 - Will any off-site office/conference facilities be needed for this IOP? (e.g. at the Ponca City or Blackwell-Tonkawa Airports?) (Y/N): Y

1.01 - List any off-site facilities (e.g. conference room, telephone/conference phone, video projector, network connection, etc) needed: We will require lab and meeting room facilities at the Ponca City airport for investigators who have instruments on the Twin Otter and for mission scientists. There should be a conference/briefing room at the airport that can hold about 30 people, and that will have a conference phone, video projector, and network connection. The individual investigators and mission scientists also requested lab and/or desk space, phones, network connections, etc. Information about these requests can be found at http://www.tap.bnl.gov/arm_acp_aerosol_iop/PoncaAirportReqdFacils.xls

2.00 - Will any off-site/supplemental measurement facilities need to be established for this IOP? (Y/N): Y

2.01 - Describe what is needed, where it is to be located, and the plans for deployment at these facilities: There may be measurements/calibration facilities needed at the Ponca city airport for calibration/evaluation of Twin Otter instrumentation. These needs are under investigation now.

SECTION 4.00: Weather Forecast/Weather Warning Support

The SGP Site subscribes to a short-range weather forecast service in order to provide advance warning of approaching severe weather. The site-wide weather warning and emergency response procedures will be explained during your initial safety briefing.

1.00 - Will you need any routine weather forecast support in addition to severe weather warning? (Y/N): Y

1.01 - Identify the specific sky, cloud, or precipitation conditions that are either necessary for your experiment or that will adversely impact your experiment and that you will need forecast: In general, the experiment requires clear to partly cloudy conditions for the portions of the experiment that focus on aerosols. The portion of the experiment that deals with the cloud indirect effect would prefer mostly cloud or overcast low cloud conditions, with cloud base at or above 2000 feet and cloud tops below 7000 feet. These clouds must be warm (liquid) clouds. The experiment will not conduct nighttime operations nor will it conduct operations during precipitation.

1.02 - What lead time and frequency of routine forecasts do you need?: We would require a forecast early in morning (before morning briefing) and an update late in afternoon to plan for next day

SECTION 5.00: Radiosonde Launch Support

Routine radiosonde launches are carried out from the SGP central facility at 0530, 1130, 1730 and 2330 UTC daily, 7 days/week. Additional launches can be

scheduled for the central and boundary facilities on a full-cost recovery (effort and materials) basis.

1.00 - Do you need additional radiosonde launches? (Y/N): Y
1.01 - Indicate the schedule and locations you require.: We anticipate that we would require radiosonde launches only from the central facility site on flight days. We will probably require sondes lauched at/near the beginning of each flight and at/near the end of each flight. One of these launches could be one of the normally scheduled launches.

SECTION 6.00: Network Connections

1.00 - Do you require connection(s) to site data communications networks? (Y/N): Y
1.01 - You must read and agree to the following: "ARM network resources are the property of the United States Government and are primarily intended for the acquisition and transfer of data from ARM CART instruments to the ARM Archive and other ARM facilities. All network usage, volume, and services are routinely monitored. Users should have no expectation of privacy. Any activities that impair the primary purpose of the network resources are subject to immediate termination without prior warning." Do you agree?: Yes
1.02 - How many connections (individual IP addresses) do you require?: I require 1 connection at the SGP site and 1 connection at the Ponca City airport. Individual investigators at the SGP site should indicate their own requirements. Requirements for personnel at Ponca City can be found at http://www.tap.bnl.gov/arm_acp_aerosol_iop/PoncaAirportReqdFacils.xls
1.03 - What network services do you require? - ftp (file transfer), telnet (remote terminal), http (www), smtp (email), etc.: ftp,telnet, http, smtp, pass through to VPN network at NASA Langley
1.04 - If you request ftp and/or telnet services, you must supply the host/domain/IP addresses you plan to connect to.: rich2.larc.nasa.gov

(128.155.17.152); dial2.larc.nasa.gov (128.155.54.38), typhoon.larc.nasa.gov (128.155.17.246)

1.05 - What volume of data do you plan to transfer? - Large data transfer volumes will need to be scheduled so as not to interfere with ARM data transfers: <100 mb/day

SECTION 7.00: Computer Security

1.00 - Will you be connecting computers to the ARM network? (Y/N): Y

1.01 - What type of computer(s) and what operating system and version (e.g. Sun OS 5.5.1, Mac OS 8.5.1, Windows 98 patch level 2) do they use?: Dell laptop PC running Windows 2000

1.02 - What virus protection software is installed in your computer(s)?: Norton Antivirus 2000

1.03 - Before any of your computers will be connected to the network, you must submit each of them to our technicians for a virus scan. Do you consent to this? (Y/N): YES

SECTION 8.00: Critical Instrument List

1.00 - Which, if any, ARM CART instruments are critical for your experiment? That is, which instruments, if unavailable, would cause you to discontinue your experiment (e.g. cancel an aircraft mission, shutdown your equipment, etc.): The critical instrument list will vary slightly with each aircraft experiment. For aerosol experiments, these critical instruments (of the standard SGP instruments) include: Raman lidar, MPL lidar, AOS scattering/asborption, aerosol size distribution, measurements, Cimel (CSPOT), MFRSR, In situ aerosol profiling (IAP), ground based flux radiometers, MMCR radar, microwave radiometer, surface and tower pressure, temp, humidity sensors.

SECTION 9.00: ARM Data Access

All SGP data are normally available from the ARM Archive within 24 hours. More

rapid (usually hourly) access to SGP data is available via the R1 research computer system.

1.00 - Will you need an account to be established on R1 to permit rapid data access? Note that R1 is no longer available for long-term storage of IOP data. (IOP data storage facilities are now available at the ARM Archive. R1 accounts will expire after 90 days and all associated user files will be deleted unless prior arrangements are made to retain the account longer) (Y/N): Y
1.01 - Please describe: An account would be advantageous to let the various investigators post graphics and/data to show and/or distribute preliminary data/results. This could probably be accomplished by setting up an ftp site on r1. Also, we would like access to near-real time images from Raman lidar (and MPL?) on r1.

SECTION 10.00: Visualization
Near-real time graphical displays of many ARM data streams are available from here

1.00 - Will additional displays be needed to support your IOP? (Y/N): Y
1.01 - Please describe: If these near-real time displays are available to the general public via a publicly accessible web page, we probably will not need additional access. If not, we will need some way to access these near-real time displays.